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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,424	12/20/2001	William Frank Mooney III	PR0017 US CIP	2714

23906 7590 03/25/2004

E I DU PONT DE NEMOURS AND COMPANY  
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EXAMINER
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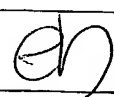
HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/027,424	<b>Applicant(s)</b> MOONEY ET AL.	
	<b>Examiner</b> Cynthia Hamilton	<b>Art Unit</b> 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 29-34 is/are rejected.
- 7) ☒ Claim(s) 19-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-18 and 29-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants have added to these claims the limitation that the dye forming composition on the first surface comprises at least one photo reducible quinone. Applicants have pointed to original claim 19 and page 4 beginning at line 35 and continuing to page 5, line 2 as support for this genus of element. The examiner notes that claim 19 does more than add only a photo reducible quinone. What original claim 19 added and what was added in the original disclosure cited as support by the applicant is as follows at the top of page 4:

In this second aspect, the invention further relates to an element comprising a dye forming composition wherein the dye forming composition comprises:

- (1) a film-forming polymeric binder,
- 5 (2) a photooxidant,
- (3) a leuco dye,
- (4) up to 10 % by weight, based on the weight of the total composition, of an acid, and
- (5) a mixture comprising (a) at least one photoreducible
- 10 quinone, and (b) at least one hydrogen donor compound.

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The first aspect of the invention set forth on page 2 is

In a first aspect, the invention relates to an element for forming a print-out image comprising:

- (a) a substrate comprising cellulose having a first surface and a second surface;
- (b) a dye forming composition on the first surface of the substrate; and
- (c) a non-dye forming composition on the second surface of the substrate comprising at least one hydrogen donor compound. A non-dye forming composition is one that lacks a color forming dye compound.

At the bottom of page 12 of the original disclosure, the photoreducible quinone is described as follows:

Photoreducible Quinone:

- Some suitable photoreducible quinones contemplated for use in the dye forming composition are described in U.S. Patent No. 3,658,543, column 9, lines 1 to 46. Typical photoreducible quinones include 1,6-pyrenequinone, 1,8-pyrenequinone, 9,10-phenanthrenequinone and mixtures thereof, which absorb principally in the 400 to 550 nm region. The amount of photoreducible quinone is based on the photooxidant used and molar ratios of from about 0.01:1 to about 2:1 may be typically employed, with ratios of about 0.2:1 to about 0.6:1 more typically employed.

The quinone is referenced with respect to the photooxidant used as referenced as with use of the photo oxidant cited on page 4 and in claim 19. Only the acid component at the top of page 4 is referenced as optional in the original specification. Thus, applicants have failed to show support for the broad genus of

- (b) a dye forming composition on the first surface of the substrate, wherein the dye forming composition comprises at least one photoreducible quinone; and

as found in claim 1 and with similar

language in the independent claims 29 and 32. The original specification discloses the original

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genus of a dye forming composition then the next genus disclosed wherein a photoreducible quinone is used is that at the top of page 4 as cited here and in original claim 19. There is no disclosure to a species of dye forming composition with a photoreducible quinone present that does not also have the genus limitations set forth on page 4 and original claim 19. Applicants have failed to give sufficient support in their original written disclosure for the breadth of invention now claimed in instant claims 1-18 and 29-34 with regard to the dye forming composition without the components set forth in original claim 19. See particularly *In re Smith*, 458 F.2d 1389, 1395, 173 USPQ 679, 683 (CCPA 1972) ("Whatever may be the viability of an inductive-deductive approach to arriving at a claimed subgenus, it cannot be said that such a subgenus is necessarily described by a genus encompassing it and a species upon which it reads." (emphasis added)). The selection of only the photoreducible quinone without the other components in claim 19 is seen as the formation of new genus not made clear by the original disclosure to have been in such a way reasonably conveyed to one skilled in the relevant art that the inventor(s), at the time the application was filed was in the possession of the applicant.

4. The examiner notes that applicants' arguments with respect to clarity and claim 22 are persuasive and the rejection with respect to 35 USC 112, second paragraph is withdrawn.

5. The examiner cites the English Translation of Taniguchi to make it of record. It does not disclose the use of a quinone in the same layer as the dye forming composition. Thus, the now amended claims are not made obvious by Taniguchi.

6. Claims 19-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The examiner has carefully considered all of applicant's amendments to the specification in their amendment of December 19, 2003. She has found no issue of new matter with regard to them.

8. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included in an updated Application Data sheet. If a parent application has become a patent, the expression "now Patent No. \_\_\_\_" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application. Applicants reference the patent application as "Allowed" in their Application Data Sheet. It is abandoned as of this date. Applicants should update the status of 09/521,536 to show it's abandoned status.

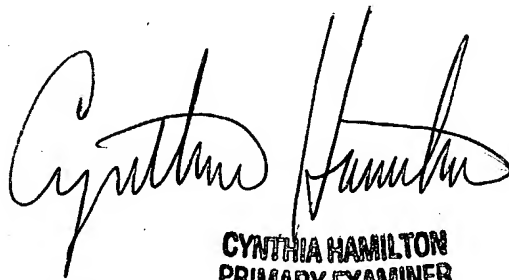
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**CYNTHIA HAMILTON  
PRIMARY EXAMINER**

March 18, 2004

Cynthia Hamilton  
Primary Examiner  
Art Unit 1752